REMARKS

In the Official Action mailed on **May 21, 2004,** the Examiner reviewed claims 1-4, 6-11, 13-18, and 20-24. Claims 1, 8, and 15 were objected because of informalities. Claims 1-4, 6-11, 13-18, and 20-24 were rejected under 35 U.S.C §103(a) as being unpatentable over Gosling (USPN 5,668,999, hereinafter "Gosling") in view of Jagannathan et al. (USPN 6,496,871, hereinafter, "Jagannathan").

Objections to the claims

Claims 1, 8, and 15 were objected because of informalities.

Applicant has amended claims 1, 8, and 15 to remove the informalities noted by the Examiner. No new matter has been added.

Rejections under 35 U.S.C. §103(a)

Independent claims 1, 8, and 15 were rejected as being unpatentable over Gosling in view of Jagannathan. Applicant respectfully points out that Gosling is clearly directed to a system "for verifying the proper operation of the executable program **prior to actual execution** by a host processor" (see Gosling, Abstract). Additionally, Gosling states "...temporarily storing stack information **indicative of** data stored in a program operand stack during the execution [of] a specified bytecode program" (see Gosling, col. 2, lines 8-11). Note that "indicative of" clearly shows that the program is not being concurrently executed but will be executed at a later time.

In contrast, the present invention is directed to forming a snapshot of **an executing program** on a first computing device, transferring the snapshot to a second computing device, and verifying on the second computing device that the snapshot is consistent with the point of execution of the program on the first computing device (see page 7, line 11 to page 8, line 5 of the instant application).

Note that verifying a bytecode program (which is not executing) is not the same as verifying a snapshot of an executing program. The bytecode program (which is not executing) only includes bytecode instructions, whereas the snapshot of the executing program also includes objects (variables) and stack contents that define the state of the executing program at a specific point during program execution (see page 8, lines 9-11 of the instant application). Hence, the system in Gosling cannot "validate that each variable within objects 206, arguments 218, and local variables 220 is of the proper type" (see page 9, lines 4-5 of the instant application).

Although the system in Gosling creates a virtual stack and simulates operation of the bytecode program to verify that the bytecode program performs valid stack operation, Gosling verifies only the bytecode program, and not the entire state of the executing program. Hence, Gosling does not validate variables and arguments (as does the present invention).

There is nothing within Gosling or Jagannathan, either explicit or implicit, which suggests forming a snapshot of an executing program on a first computing device, transferring the snapshot to a second computing device, and verifying on the second computing device that the snapshot is consistent with the point of execution of the program on the first computing device. Furthermore, **there is nothing within Gosling or Jagannathan that suggests validating variables and arguments of an application snapshot.**

Accordingly, Applicant has amended independent claims 1, 8, and 15 to clarify that a snapshot of an executing program is taken on a first computing device, and then verified for consistency on a second computing device to ensure that the state of the snapshot is consistent with the point of execution of the program on the first computing device. These amendments find support on page 7, line 11 to page 8, line 5 and on page 9, lines 4-5 of the instant application.

Hence, Applicant respectfully submits that independent claims 1, 8, and 15 as presently amended are in condition for allowance. Applicant also submits that

claims 2-4, 6-7, and 22, which depend upon claim 1, claims 9-11, 13-14, and 23, which depend upon claim 8, and claims 16-18, 20-21, and 24, which depend upon claim 15, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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